

Abstract

The invention relates to a propulsion system, comprising a diesel engine (1), an air inlet circuit (11, 13, 14) and an exhaust circuit (16, 3, 4), for exhaust gases coming from the engine. The inlet circuit comprises adjustment means (22, 23) to control the air flow (D) into the engine (1) and the exhaust circuit comprises a nitrogen oxides trap (3) for storage of the nitrogen oxides contained in the exhaust gases. During a regeneration mode in which the exhaust gases are provided with reducing agents for regeneration of the nitrogen oxides trap (3), a set point is determined for the air flow (D), according to the operating status of the engine, the adjustment means (22, 23) are controlled to obtain an air flow (D) close to the set point, a main fuel injection (Q_p) is carried out and a secondary fuel injection (Q_s) is carried out during a power phase such as to maintain the exhaust gas in a reducing state.